

Attorney Docket No.: 48544.00012 (DC-0293)
Inventor: Paula Sundstrom
Serial No.: 10/672,074
Filing Date: September 29, 2003
Page 16

Amendments to the Drawings:

Please replace Figures 3 and 13 as originally filed with the attached replacement sheet of Figure 3A, new sheet of Figure 3B and replacement sheet of Figure 13.

Attorney Docket No.: 48544.00012 (DC-0293)
Inventor: Paula Sundstrom
Serial No.: 10/672,074
Filing Date: September 29, 2003
Page 17

REMARKS

Claims 1-45 are pending in the instant application. Claims 33-45 have been withdrawn from consideration and canceled. Claims 1-32 have been rejected. Claims 1 and 10 have been amended. Claims 33-45 have been canceled. No new matter has been added by this amendment. Reconsideration is respectfully requested in light of the following remarks.

I. Election/Restriction Requirement Under 35 U.S.C. §121

The claims of the present application have been subjected to a Restriction Requirement under 35 U.S.C. §121 by the Examiner in this case. The Examiner suggests that restriction of the present invention into the following groups is required:

Group I, claims 1-32, drawn to a method of altering expression of *Candida albicans* *PDE2* gene by inhibiting *PDE2* gene expression;

Group II, claims 33 and 35-45 (in part), drawn to a method of altering expression of *Candida albicans* *CAP1* gene; and

Group III, claims 33 and 35-45 (in part), drawn to a method of altering expression of *Candida albicans* *PDE2* gene by altering cAMP levels; and

Group IV, claim 34, drawn to a microarray comprising at least one nucleotide sequence or fragment thereof of *C. albicans* *PDE2* gene or *C. albicans* *CAP1* gene.

The Examiner suggests that the inventions listed as Groups I-IV are patentably distinct from each other. Applicant is required to elect one of the Groups to be examined. Applicant respectfully disagrees and traverses this restriction requirement. However, in an earnest effort to facilitate the

Attorney Docket No.: 48544.00012 (DC-0293)
Inventor: Paula Sundstrom
Serial No.: 10/672,074
Filing Date: September 29, 2003
Page 18

prosecution of this application, Applicant hereby elects to prosecute Group I, claims 1-32, drawn to a method of altering expression of *Candida albicans* *PDE2* gene by inhibiting *PDE2* gene expression, with traverse.

As the restriction requirement of the pending claims has been deemed proper and made final, claims 33-45 have been withdrawn from further consideration. Accordingly, Applicant is canceling claims 33-45 without prejudice, reserving the right to file continuing applications for the canceled subject matter.

II. Priority

The Examiner has indicated that the paragraph disclosing the parent history of the instant invention should be updated to reflect the status of U.S. Non-Provisional Application No. 09/801,774 as U.S. Patent No. 6,706,688. Applicant has made appropriate amendment to the specification.

III. Drawings

The Examiner has suggested that Figures 3 and 13 are not legible and requires replacement sheets for these figures. Applicant submits herewith replacement sheets labeled Figures 3A and 3B to replace Figure 3 as originally filed, as well as a replacement sheet for Figure 13. Figure legends for Figures 3 and 13 have been amended to conform with the replacement sheets.

IV. Sequence Listing and Specification

The Examiner suggests that the specification and drawings contain sequences which lack corresponding sequence identifiers.

Attorney Docket No.: 48544.00012 (DC-0293)
Inventor: Paula Sundstrom
Serial No.: 10/672,074
Filing Date: September 29, 2003
Page 19

Applicant is requested to identify these sequences with a SEQ ID NO: and provide a new version of the sequence listing and disk. Moreover, Applicant is requested to check the specification for other minor errors. To facilitate the prosecution of the present application, Applicant has added sequence identifiers to the legend of Figure 3 and at pages 70-72 and further amended paragraphs [0015], [0018], [0019], [0026], [0036], [0116], [0253], [0255], and [0256] to correct inadvertent typographical errors. Applicant also submits herewith new paper and computer readable copies of the sequence listing in compliance with the requirements of 37 CFR 1.821 through 1.825.

V. Rejection of Claims Under 35 U.S.C. §112

Claims 1-32 have been rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor, at the time the application was filed, had possession of the claimed invention. It is suggested that the claimed genus of *PDE2* genes is a large variable genus with the potentiality of encoding many different variants. The Examiner suggests that the single altered or disrupted *PDE2* gene of SEQ ID NO:13 encoding PDE of the claimed genus is insufficient to put one of skill in the art in possession of the attributes and features of all species within the claimed genus. Applicant respectfully disagrees with this rejection.

From the teachings provided in the instant disclosure, in particular in Examples 17 and 26 (pages 82 and 88, respectively), the skilled artisan would readily appreciate the nature of a *PDE2*

Attorney Docket No.: **48544.00012 (DC-0293)**
Inventor: **Paula Sundstrom**
Serial No.: **10/672,074**
Filing Date: **September 29, 2003**
Page 20

gene of *C. albicans*, as the structure of the *PDE2* gene was known at the time of filing of the present application in GENBANK Accession No. CAA21984, as well as in the Stanford *Candida* genome database. Moreover, Applicant provides the conserved 3',5' cyclic nucleotide phosphodiesterase signature sequence common to *PDE2* genes from *C. albicans*. See Example 26 and SEQ ID NO:3 of Figure 13. In light of this disclosure, Applicant has reasonably conveyed to one skilled in the art that, at the time the application was filed, Applicant had possession of the claimed invention. However, in an earnest effort to highlight the common structural feature found in *C. albicans PDE2* genes, Applicant has amended claim 1 to indicate that *C. albicans PDE2* gene, whose expression is being altered, encodes a protein comprising the amino acid sequence of SEQ ID NO:3. Support for this amendment is found in Example 26 and Figure 13 as originally filed. Having clarified a structural feature common to species within the claimed genus, Applicant respectfully believes that the written description requirement has been met. It is therefore respectfully requested that the rejection under 35 U.S.C. 112, first paragraph, be reconsidered and withdrawn.

Claims 1-32 have been rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. The Examiner suggests that the omitted steps in claim 1 include ways of altering expression, which from the instant specification appears to be disruption of the *PDE2* gene from *C. albicans* by replacing 1388-bp of the coding region (UTR) of *PDE2* with 4.0 kbp *Bam*HI-*Bgl*III, as per Example 18 of the instant specification. Applicant respectfully disagrees with this rejection.

Attorney Docket No.: 48544.00012 (DC-0293)
Inventor: Paula Sundstrom
Serial No.: 10/672,074
Filing Date: September 29, 2003
Page 21

Paragraphs [0121] and [0124] of the present application teach that the expression of the *C. albicans* *PDE2* gene can be altered using *PDE2* genes and binding partners of *PDE2* (e.g., as described in paragraphs [0092] and [0207]-[0215]). Accordingly, in an earnest effort to clarify the method of the present invention, Applicant has amended claim 1 to indicate that instant method is for use in altering the virulence properties of *C. albicans* wherein said method comprises contacting *C. albicans* with a *C. albicans* *PDE2* gene or *PDE2* binding partner thereby altering the expression of the *C. albicans* *PDE2* gene encoding a protein comprising the amino acid sequence of SEQ ID NO:3. Support for this amendment is found throughout the specification and in particular in paragraphs [0121] and [0124]. In light of this clarification of the instant method, it is respectfully requested that the rejection under 35 U.S.C. 112, second paragraph, be reconsidered and withdrawn.

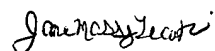
VI. Conclusion

The Applicant believes that the foregoing comprises a full and complete response to the Office Action of record.

Attorney Docket No.: **48544.00012 (DC-0293)**
Inventor: **Paula Sundstrom**
Serial No.: **10/672,074**
Filing Date: **September 29, 2003**
Page 22

Accordingly, favorable reconsideration and subsequent allowance of the pending claims is earnestly solicited.

Respectfully submitted,



Jane Massey Licata
Registration No. 32,257

Date: **April 26, 2006**

Licata & Tyrrell P.C.
66 E. Main Street
Marlton, New Jersey 08053

(856) 810-1515